class.

## What is Claimed:

- A data structure for a client tracking system, including:

   a client tracking server object derived from a server class that provides an

  implementation of a query interface function that overrides the query interface function of the server class, wherein a phantom manager object is a data member of the client tracking server
- 2. A data structure according to claim 1, wherein instead of providing an implementation of the query interface function that overrides the query interface function of the server class, the client tracking server object provides an alternative implementation of the query interface function wherein if the query interface function invokes another function according to convention, then the other function is overridden.
- 3. A data structure according to claim 1, wherein the phantom manager class of the phantom manager object inherits from a base phantom manager class that includes at least one of (1) a phantom going away function that is invoked by a phantom server object to notify the phantom manager object that the phantom server object is being destructed, (2) a get object pointer function that returns a pointer to an embedding client tracking object, (3) a create function that is invoked by the query interface function of the client tracking server object to create a phantom server object, (4) a get phantom count function that returns the number of phantom server objects currently managed by the phantom manager object, (5) a create instance function that instantiates a phantom server object and that is invoked by the create function and (6) an instance going away function that is invoked by the phantom going away function.
- 4. A data structure according to claim 1, wherein the phantom manager class of the phantom manager object inherits from a base phantom manager class that includes at least one of (1) a my list pointer data member that provides a pointer to phantom server objects managed by the phantom manager object, (2) a my object pointer data member that provides a pointer to a client tracking server object in which the phantom manager object is embedded and (3) a my count data member that provides a count indicative of the number of phantom server objects managed by the phantom manager object.